serious personal injury than equipment that conforms to the specific requirements of this subpart.

(2) Any petition made under this paragraph is subject to the procedures set forth in §238.21, and will be disposed of in accordance with §238.21(g).

§238.203 Static end strength.

- (a)(1) Except as further specified in this paragraph or in paragraph (d), on or after November 8, 1999 all passenger equipment shall resist a minimum static end load of 800,000 pounds applied on the line of draft without permanent deformation of the body structure.
- (2) For a passenger car or a locomotive, the static end strength of unoccupied volumes may be less than 800,000 pounds if:
- (i) Energy absorbing structures are used as part of a crash energy management design of the passenger car or locomotive, and
- (ii) The passenger car or locomotive resists a minimum static end load of 800,000 pounds applied on the line of draft at the ends of its occupied volume without permanent deformation of the body structure.
- (3) For a locomotive placed in service prior to November 8, 1999, as an alternative to resisting a minimum static end load of 800,000 pounds applied on the line of draft without permanent deformation of the body structure, the locomotive shall resist a horizontal load of 1,000,000 pounds applied along the longitudinal center line of the locomotive at a point on the buffer beam construction 12 inches above the center line of draft without permanent deformation of the body structure. The application of this load shall not be distributed over an area greater than 6 inches by 24 inches. The alternative specified in this paragraph is not applicable to a cab car or an MU locomotive.
- (4) The requirements of this paragraph do not apply to:
 - (i) A private car; or
- (ii) Unoccupied passenger equipment operating at the rear of a passenger train
- (b) Passenger equipment placed in service before November 8, 1999 is presumed to comply with the requirements of paragraph (a)(1) of this sec-

- tion, unless the railroad operating the equipment has knowledge, or FRA makes a showing, that such passenger equipment was not built to the requirements specified in paragraph (a)(1).
- (c) When overloaded in compression, the body structure of passenger equipment shall be designed, to the maximum extent possible, to fail by buckling or crushing, or both, of structural members rather than by fracture of structural members or failure of structural connections.
- (d) Grandfathering of non-compliant equipment for use on a specified rail line or lines.
- (1) Grandfathering approval is equipment and line specific. Grandfathering approval of non-compliant equipment under this paragraph is limited to usage of the equipment on a particular rail line or lines. Before grandfathered equipment can be used on another rail line, a railroad must file and secure approval of a grandfathering petition under paragraph (d)(3) of this section.
- (2) Temporary usage of non-compliant equipment. Any passenger equipment placed in service on a rail line or lines before November 8, 1999 that does not comply with the requirements of paragraph (a)(1) may continue to be operated on that particular line or (those particular lines) if the operator of the equipment files a petition seeking grandfathering approval under paragraph (d)(3) before November 8, 1999. Such usage may continue while the petition is being processed, but in no event later than May 8, 2000, unless the petition is approved.
- (3) Petitions for grandfathering. Petitions for grandfathering shall include:
- (i) The name, title, address, and telephone number of the primary person to be contacted with respect to the petition:
- (ii) Information, including detailed drawings and material specifications, sufficient to describe the actual construction of the equipment;
- (iii) Engineering analysis sufficient to describe the likely performance of the static end strength of the equipment and the likely performance of the equipment in derailment and collision scenarios pertinent to the equipment's static end strength;

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- (iv) A description of risk mitigation measures that will be employed in connection with the usage of the equipment on a specified rail line or lines to decrease the likelihood of accidents involving the use of the equipment; and
- (v) A quantitative risk assessment, incorporating the design information, engineering analysis, and risk mitigation measures described in this paragraph, demonstrating that the use of the equipment, as utilized in the service environment for which recognition is sought, is in the public interest and is consistent with railroad safety.
- (e) Service. Three copies of each petition shall be submitted to the Associate Administrator for Safety, Federal Railroad Administration, 1120 Vermont Ave., Mail Stop 25, Washington, DC 20590.
- (f) FEDERAL REGISTER notice. FRA will publish a notice in the FEDERAL REGISTER concerning each petition under paragraph (d) of this section.
- (g) Comment. Not later than 30 days from the date of publication of the notice in the FEDERAL REGISTER concerning a petition under paragraph (d) of this section, any person may comment on the petition.
- (1) Each comment shall set forth specifically the basis upon which it is made, and contain a concise statement of the interest of the commenter in the proceeding.
- (2) Three copies of each comment shall be submitted to the Associate Administrator for Safety, Federal Railroad Administration, 1120 Vermont Ave., Mail Stop 25, Washington, DC 20590.
- (3) The commenter shall certify that a copy of the comment was served on each petitioner.
 - (h) Disposition of petitions.
- (1) FRA will conduct a hearing on a petition in accordance with the procedures provided in §211.25 of this chapter.
- (2) If FRA finds that the petition complies with the requirements of this section and that the proposed usage is in the public interest and consistent with railroad safety, the petition will be granted, normally within 90 days of its receipt. If the petition is neither granted nor denied within 90 days, the petition remains pending for decision.

FRA may attach special conditions to the approval of the petition. Following the approval of a petition, FRA may reopen consideration of the petition for cause stated.

- (3) If FRA finds that the petition does not comply with the requirements of this section or that the proposed usage is not in the public interest and consistent with railroad safety, the petition will be denied, normally within 90 days of its receipt.
- (4) When FRA grants or denies a petition, or reopens consideration of the petition, written notice is sent to the petitioner and other interested parties.

§238.205 Anti-climbing mechanism.

- (a) Except as provided in paragraph (b) of this section, all passenger equipment placed in service for the first time on or after September 8, 2000 shall have at both the forward and rear ends an anti-climbing mechanism capable of resisting an upward or downward vertical force of 100,000 pounds without failure. When coupled together in any combination to join two vehicles, AAR Type H and Type F tight-lock couplers satisfy this requirement.
- (b) Each locomotive ordered on or after September 8, 2000, or placed in service for the first time on or after September 9, 2002, shall have an anticlimbing mechanism at its forward end capable of resisting an upward or downward vertical force of 200,000 pounds without failure, in lieu of the forward end anti-climbing mechanism requirements described in paragraph (a) of this section.

§238.207 Link between coupling mechanism and car body.

All passenger equipment placed in service for the first time on or after September 8, 2000 shall have a coupler carrier at each end designed to resist a vertical downward thrust from the coupler shank of 100,000 pounds for any normal horizontal position of the coupler, without permanent deformation. For passenger equipment that is connected by articulated joints that comply with the requirements of \$238.205(a), such passenger equipment also complies with the requirements of this section.